

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently amended) An agitating ball mill, comprising:

a grinding chamber containing grinding media[[,]];

a stator and a rotor which are arranged in the grinding chamber, said rotor being shaped as a rotationally symmetrical element, said stator being formed by an inner surface of the grinding chamber, said inner surface presenting a shape which essentially compliments the rotor surface, the rotor and the stator each having pins arranged over an entire respective surface thereof which extend from the respective surface and project into the processing space;

structure defining a grinding material [[an]] input opening and [[an]] a grinding material output opening for feeding and removing grinding material to or from the grinding chamber[[,]]; and

a grinding medium separation device, arranged in the grinding chamber upstream from the output opening, used to separate grinding media entrained in the grinding material from the grinding material before the ~~latter~~ grinding material is removed from the grinding space through the output opening, ~~the rotor being shaped like a rotationally symmetrical element, the stator being formed by an inner surface of the grinding chamber whose shape essentially compliments the rotor surface, the~~

~~rotor and the stator having pins arranged over their entire respective surface, which extend from the respective surface and project into the processing space.~~

2. (Previously Presented) The agitating ball mill according to claim 1, wherein the grinding material input opening is arranged in a radially outer area of the grinding chamber, and the grinding material output opening is arranged in a radially inner area of the grinding chamber.

3. (Currently amended) The agitating ball mill according to claim 1, wherein the rotor is essentially shaped ~~like~~ as a truncated cone, wherein the grinding material input opening is arranged in the area of ~~[[the]]~~ a wide truncated cone end, and the grinding material output opening is arranged in the area of ~~[[the]]~~ a narrow truncated cone end of the grinding chamber.

4. (Currently amended) The agitating ball mill according to claim 1, wherein the rotor is essentially shaped ~~like~~ as a double truncated cone, wherein the grinding material input opening is arranged in the area of ~~[[the]]~~ a wide truncated cone end, and the grinding material output opening is arranged in the area of ~~[[the]]~~ a narrow truncated cone end of the grinding chamber.

5. (Currently amended) The agitating ball mill according to claim 1, wherein the rotor is essentially shaped ~~[[like]]~~ as a disk, wherein the grinding material input opening is arranged in ~~[[the]]~~ a radially outer peripheral area, and the grinding material output opening is arranged in ~~[[the]]~~ a radially inner axial area of the grinding chamber.

6. (Currently amended) The agitating ball mill according to claim 5, wherein the disk has pins on both ~~[[its]]~~ of two flat disk surfaces thereof.

7. (Currently amended) The agitating ball mill according to claim 1, wherein the grinding chamber with ~~[[its]]~~ said stator, ~~[[and]]~~ said rotor and ~~a separator~~ said separation device ~~can be pivoted~~ is pivotable into a swiveled position in such a way that the separation device arrives at ~~a high~~ an elevated location~~[[,]]~~ which is higher than most of the entire grinding chamber volume.

8. (Previously Presented) The agitating ball mill according to claim 7, wherein the swiveled position is a non-operating position of the agitating ball mill.

9. (Currently amended) The agitating ball mill according to claim 7, wherein ~~[[the]]~~ a rotational axis of the rotor is essentially arranged horizontal in the operating position of the agitating ball mill.

10. (Currently amended) The agitating ball mill according to claim 7, wherein ~~[[the]]~~ a rotational axis of the rotor is essentially arranged vertical in the non-operating position.

11. (Previously Presented) The agitating ball mill according to claim 7, wherein most of the grinding chamber volume takes up between 50% and 100% of the entire grinding chamber volume.

12. (Currently amended) The agitating ball mill according to claim 7, wherein ~~high~~ said elevated location of the separation device is the highest location of the separation device achievable via swiveling.

13. (Currently amended) The agitating ball mill according to claim 7, wherein the separation device ~~can be replaced~~ is replaceable.

14. (Previously Presented) The agitating ball mill according to claim 7, wherein the separation device is a self-cleaning grading screen.

15. (Previously Presented) The agitating ball mill according to claim 7, wherein the separation device is a paddle wheel.

16. (Previously Presented) The agitating ball mill according to claim 7, wherein the separation device is a separating gap.

17. (Currently amended) An ~~The~~ agitating ball mill, comprising:
according to claim 2, wherein

a grinding chamber containing grinding media;

a stator and a rotor which are arranged in the grinding chamber, said rotor being shaped as a rotationally symmetrical element, and said stator being formed by an inner surface of the grinding chamber, said inner surface presenting a shape which essentially compliments the rotor surface, the rotor and the stator each having pins arranged over an entire respective surface thereof which extend from the respective surface and project into the processing space, the rotor [[is]] being a hollow rotor with at least one hole arranged radially inside the rotor and at least one hole arranged radially outside the rotor, wherein, during operation, the ~~auxiliary~~ grinding media are transported along with a portion of the grinding material flow inside the rotor from [[a]] the at least one radially inner hole to [[a]] the at least one radially outer hole via [[the]] centrifugal action of the rotor, and transported outside the rotor with [[the]] an entire grinding material flow from the at least one radially outer hole to the at least one radially inner hole via [[the]] pumping action of the grinding material input opening, so that the ~~auxiliary~~ grinding media circulate inside the agitating ball mill;

structure defining a grinding material input opening and a grinding material output opening for feeding and removing grinding material to or from the grinding chamber, the grinding material input opening being arranged in a radially outer area of the grinding chamber, and the grinding material output opening being arranged in a radially inner area of the grinding chamber; and

a grinding medium separation device, arranged in the grinding chamber upstream from the output opening, used to separate grinding media entrained in the grinding material from the grinding material before the grinding material is removed from the grinding space through the output opening.

18. (Currently amended) The agitating ball mill according to claim 17, wherein the at least one radially inner ~~holes extend~~ hole extends in the circumferential direction given an inner radius R_i at the rotor, and the at least one radially outer ~~holes extend~~ hole extends in ~~[[the]]~~ a circumferential direction given an outer radius R_a at the rotor.

19. (Currently amended) The agitating ball mill according to claim 17, wherein the hollow rotor exhibits inner channels, which each form a flow channel between said at least one radially inner hole and said at least one ~~of the~~ radially outer ~~holes~~ hole.

20. (New) An agitating ball mill, comprising:

a grinding chamber containing grinding media;

a stator and a rotor which are arranged in the grinding chamber, said rotor being shaped as a rotationally symmetrical element, and said stator being formed by an inner surface of the grinding chamber, said inner surface presenting a shape which essentially compliments the rotor surface, the rotor and the stator each having pins arranged over an entire respective surface thereof which extend from the respective surface and project into the processing space;

structure defining a grinding material input opening and a grinding material output opening for feeding and removing grinding material to or from the grinding chamber, the grinding material input opening being arranged in a radially outer area of the grinding chamber, and the grinding material output opening being arranged in a radially inner area of the grinding chamber; and

a grinding medium separation device, arranged in the grinding chamber upstream from the output opening, used to separate grinding media entrained in the grinding material from the grinding material before the grinding material is removed from the grinding space through the output opening, the separation device including a self-cleaning grading screen.

21. (New) An agitating ball mill, comprising:

a grinding chamber containing grinding media;

a stator and a rotor which are arranged in the grinding chamber, said rotor being shaped as a rotationally symmetrical element, and said stator being formed by an inner surface of the grinding chamber, said inner surface presenting a shape which essentially compliments the rotor surface, the rotor and the stator each having pins arranged over an entire respective surface thereof which extend from the respective surface and project into the processing space;

structure defining a grinding material input opening and a grinding material output opening for feeding and removing grinding material to or from the grinding chamber; and

a grinding medium separation device, arranged in the grinding chamber upstream from the output opening, used to separate grinding media entrained in the grinding material from the grinding material before the grinding material is removed from the grinding space through the output opening, the separation device including a paddle wheel.

22. (New) An agitating ball mill, comprising:

a grinding chamber containing grinding media;

a stator and a rotor which are arranged in the grinding chamber, said rotor being shaped as a rotationally symmetrical element, and said stator being formed by an inner surface of the grinding chamber, said inner surface presenting a shape which essentially compliments the rotor surface, the rotor and the stator each having pins

arranged over an entire respective surface thereof which extend from the respective surface and project into the processing space, the rotor being a hollow rotor with at least one hole arranged radially inside the rotor and at least one hole arranged radially outside the rotor, wherein, during operation, the grinding media are transported along with a portion of the grinding material flow inside the rotor from the at least one radially inner hole to the at least one radially outer hole via centrifugal action of the rotor, and transported outside the rotor with an entire grinding material flow from the at least one radially outer hole to the at least one radially inner hole via pumping action of the grinding material input opening, so that the auxiliary grinding media circulate inside the agitating ball mill;

structure defining a grinding material input opening and a grinding material output opening for feeding and removing grinding material to or from the grinding chamber; and

a grinding medium separation device, arranged in the grinding chamber upstream from the output opening, used to separate grinding media entrained in the grinding material from the grinding material before the grinding material is removed from the grinding space through the output opening.